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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-----------------|-------------|----------------------|---------------------|------------------|
| 09/707,269      | 11/06/2000  | L. Charles Hardy     | 53415USA8C.038      | 9169             |

32692 7590 04/03/2007  
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| EXAMINER |
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EVERHART, CARIDAD

|          |              |
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| ART UNIT | PAPER NUMBER |
|----------|--------------|

2891

| SHORTENED STATUTORY PERIOD OF RESPONSE | NOTIFICATION DATE | DELIVERY MODE |
|--|-------------------|---------------|
| 3 MONTHS                               | 04/03/2007        | ELECTRONIC    |

**Please find below and/or attached an Office communication concerning this application or proceeding.**

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Notice of this Office communication was sent electronically on the above-indicated "Notification Date" and has a shortened statutory period for reply of 3 MONTHS from 04/03/2007.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

LegalUSDocketing@mmm.com  
LegalDocketing@mmm.com

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**Office Action Summary**

Application No.

09/707,269

Applicant(s)

HARDY, L. CHARLES

Examiner

Caridad M. Everhart

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**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --****Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 09 January 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 16, 19-26, 29-38 and 41-43 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 16, 19-26, 29-38, 41-43 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                     | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

### Response to Arguments

Please see the response to arguments in the Nonfinal Rejection dated 8-9-2006 for the arguments given by the examiner in that paper, which address similar issues to those brought up by arguments by applicants which are addressed herein.

Applicant has argued that Kauman does not suggest abrasive-free composition for CMP. This argument is respectfully found to be not persuasive because the utility of the composition need not be disclosed in the reference(MPEP 2122). Applicant has further argued that Kaufman teaches an incomplete precursor composition free of abrasives which is an intermediate and that the rejection relies upon disclosure in the background section given by Kaufman. These arguments are respectfully found to be not persuasive because patents are prior art references for all that they contain(MPEP 2123), so that the composition disclosed by Kaufman is prior art despite the composition being an intermediate and despite reliance on background section statements for part of the rejection. Applicant has further argued that Kaufman fails to provide the buffer, and that the buffer in the claims is a buffer with specific characteristics. These arguments are respectfully found to be not persuasive because the arguments and rejection in the nonfinal rejection dated 8-9-2006 point out why the combined prior art teaches the buffer with the characteristics recited in the claims. The references which were cited in the arguments were in support of the rejection, but were not cited in the rejections, but were rather given to offer scientific reasons in support of the rejection. The references supported that a buffer was present in the composition disclosed by Kaufman, and there

was not an attempt to combine the references with Kaufman, as the references were not cited in the rejection. Applicant has further argued against the Mueller et al reference; however, there was not a rejection in view of Mueller et al in the nonfinal rejection dated 8-9-2006.

***Claim Rejections - 35 USC § 103***

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

Claims 16,19-28,31,36-39, and 41-43 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kaufman, et al. (US 5,954,997) in view of Hudson (US 5,972,792) .

Kaufman et al disclose a solution which includes an oxidizing agent, a complexing agent, and a passivating agent, which is disclosed as a film forming agent(col. 4, lines 10-15). Kaufman et al further discloses a buffer is included (col. 8, lines 22-33). The buffer may be phosphoric acid, which is a polyprotic protolyte having at least one pKa greater than 7. The disclosure that the pH is maintained in the range of 4-9 by the acid is a disclosure that the acid acts as a buffer, and a buffer includes the salt in equilibrium with the ionized acid, so that the limitation of claim 19 is satisfied. The complexing agent may be a carboxylic acid such as lactic acid or oxalic acid or citric acid, which are multidentate complexing agents. Kaufman et al further disclose that the passivating agent is benzotriazole(BTA)(col. 10, lines 7-10). Surfactant may be included(col. 6,lines 46-48). Halo acid may also be included, as Kaufman et al discloses HF acid(col. 6, lines 28-31).

Kaufman et al disclose that the solution may be separate from particles(col. 8, lines 43-53), so that it would be expected that the concentration of particles in the solution would be within the recited range when separate from the particles.

Hudson discloses a solution which includes oxidants(col. 4, lines 55-58), passivating agent benzotriazole( col. 4, lines 62-65), The solution is abrasive-free(col. 6, lines 5-10 and 25-30). The pH of the solution is controlled(col. 4, lines 10-14).

It would have been obvious to one of ordinary skill in the art at the time of the invention that the composition taught by Kaufman et al without the addition of particles can be used with an abrasive pad as taught by Hudson because Hudson discloses that a polishing composition may be used with an abrasive pad without the abrasive, and Hudson discloses the benefits of using an abrasive pad instead of an abrasive slurry. In addition, the elimination of an element, in this case abrasive particles, is obvious if the function of the element is not desired(MPEP 2144.04[R-1] II), which would be the case when an abrasive pad is used, and as argued above in the Response to Arguments.

Claims 29, 30, and 32-35 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kaufman, et al. in view of Hudson.

Kaufman et al is silent with respect to the recited concentrations of components and of the recited concentrations of particles.

It would have been obvious to one of ordinary skill in the art to have chosen the recited concentrations of components because concentrations are variables of the art which can be determined by one of ordinary skill in the art. Kaufman et al disclose that

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the concentrations can be varied in Fig. 1 and Fig. 2 and descriptions of the figures in col. 4, lines 35-48).

With respect to the concentration of particles, Kaufman et al disclose that the solution may be separate from particles(col. 8, lines 43-53), so that it would be expected that the concentration of particles in the solution would be within the recited range when separate from the particles, and Hudson discloses the use of the solution without particles, as particles may damage the abrasive pad(col. 6, lines 25-30).

**THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Caridad M. Everhart whose telephone number is 571-272-1892. The examiner can normally be reached on Monday through Fridays 7:30-4:00.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, B. Baumeister can be reached on 571-272-1722. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

  
CAROLAD EVERHART  
PRIMARY EXAMINER

C. Everhart  
3-24-2007